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ABSTRACT

This paper discusses the outcomes of a study that examined the importance of personality to identity formation in Terman's sample of 1,528 intellectually gifted children in 1936 and 1940. Based on the children's responses to questions concerning their occupational choice and factors that influenced their decision, participants were classified into one of the following four identity statuses; (1) Identity Achievement; (2) Moratorium, which indicated a participant had a definite occupational goal in mind but the current occupation was not yet the choice for life work; (3) Foreclosure, which indicated the person had a definite goal and a choice for life work, but the commitment was made because of family or ethnic background, family influences, or because previous dreams were made impossible by circumstances; and (4) Diffusion, which indicated the person had no goals nor commitment to any occupation as life work. Comparisons among the four identity statuses and between the two subgroups that followed progressive and regressive pathways in their identity development demonstrated the differences in personality characteristics. Positive traits such as perseverance, purposfulness, desire to excel, and self-confidence were found conducive to the successful identity formation and to the adoption of the progressive pathway in identity development. (Contains 43 references and five tables.) (CR)

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# Importance of Personality in Gifted Children's Identity Formation

**Li Zuo**

**The College of William and Mary**

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Zuo



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Abstract

The study examines the importance of personality to identity formation in Terman's gifted sample. Comparisons among the four identity statuses and between the two subgroups that followed progressive and regressive pathways in their identity development demonstrated the differences in personality characteristics. Positive traits such as perseverance, purposiveness, desire to excel, and self-confidence were found conducive to the successful identity formation and to the adoption of the progressive pathway in identity development.

Importance of Personality in Gifted Children's Identity Formation

## Background of the Problem

Research on the construct of identity is generally conducted in the theoretical framework of Erikson's psychosocial development and Marcia's operational paradigm. According to Erik Erikson, life-long development from infanthood to old age progresses through eight stages with each characterized by a specific crisis. For the stage of adolescence, Identity vs. Identity Confusion is the characteristic developmental crisis (Erikson, 1950, 1968). The concept of identity refers to the sense of self, who I am and what I am going to be. Individuals who have successfully resolved the crisis will be able to find a niche in the society which integrates their personal characteristics and communal expectations. Unfortunately, Erikson's identity theory was difficult to be examined empirically because of its impressionistic and holistic nature. That situation was changed when Marcia put forward his operational paradigm which differentiated identity into four statuses along the dimension of exploration and commitment (Marcia, 1966, 1980). Exploration refers to the search among various options, and commitment means the decision made on a particular choice. The four statuses thus distinguished are: *Identity Achievement*, the status that is complete with both exploration and commitment, *Moratorium*, the status with the dimension of exploration but without that of commitment, *Foreclosure*, the status for those who have made no exploration but are nevertheless committed to a certain choice either by authority figures or circumstances, and, finally, *Identity Diffusion,* the status for those who have neither explored nor committed.

Facilitated by the operationalized construct of identity, researchers have been examining identity formation with various groups and in different social or cultural contexts. Factors that have been found influential to identity formation include age, cognitive and psychological development, family dynamics, role models, historical conditions, and social or cultural influences specific to gender or ethnicity. A concise discussion of the major findings related to these factors is given in the following.

Age

Identity development is typically found to peak in late adolescence and early adulthood (Archer, 1982; Kroger, 1993; Whitbourn & VanManen, 1996). Though it can be a concern with early to mid adolescents, the majority at that time are either identity foreclosed or diffused (Archer, 1982; Archer & Waterman, 1983). Many empirical studies have disproved Erikson's proposition that identity crisis could be resolved by late adolescence (Meilman, 1979; Stark & Traxler, 1974; La Voie 1976; Shaffer, 1994). Some researchers have found the crisis extending well into mid adulthood among their female subjects (Josselson, 1994; Kroger, 1983). Marcia (1980, 1987) even maintains that identity formation is a life long process responsive to new experiences in life and changes in society.

Cognitive Development

The timing for identity crisis is decided in part by an individual's cognitive or psychological readiness to consider this important issue. Some researchers found formal operation to be a necessary, though not sufficient, condition for identity development (Wagner, 1976; Rowe & Marcia, 1980). This relationship, however, was not confirmed by all studies (Berzonsky et al, 1975; Cauble, 1976). The failure to detect the link

between the two in some studies was pointed out as due to their problematic use of global analysis with such multi-dimensional constructs as "formal operation" and "identity" (Grotevant, 1987).

Family Dynamics

Home environment and parents' child-rearing practices exert both direct and indirect influences on identity formation. The indirect influence is mediated via a child's early life experiences that prepare for identity development in adolescence. Parents' encouragement to children's independence, an optimal level of child-parent attachment, children's low to moderate conflict with parents that helps promote psychological growth are found conducive to the development of autonomy, initiative and industry in early life stages, and to the identity exploration and achievement in adolescence (Adams & Jones, 1983; La Voie & Adams, 1982; Papini, 1994). Too much family attachment, excessive identification with parents and conformity with authorities are likely to result in identity foreclosure (Marcia, 1980, 1994; Waterman, 1982), whereas uninvolved or dysfunctional families in which children feel neglected or rejected by parents tend to produce identity diffusers (Waterman, 1982; Marcia, 1980, 1994). Although it is problematic to infer causal relationship between family dynamics and identity formation (Waterman, 1982), an apparent correlation exists between the two.

Role Models

Studies that investigated the influence of the role model on identity formation concur in its significance to the successful resolution of the identity crisis (Roeske & Lake, 1977; Waterman, 1982; Josselson, 1994; Zuo, 1999). Individuals with role models are found better able to handle the challenges of identity development with role models

exemplifying for them fruitful exploration and meaningful commitment. Waterman (1982) thus summarized the influence of role models on identity formation, "The greater the availability of model figures perceived as living successfully, the greater the probability will be that a person will form meaningful commitment" (p. 345).

Socio-historical Influences

Socio-historical conditions can exert a unique impact on identity formation in that their influence can sweep across a whole generation. Studies of youth who have experienced significant events such as war, political instability and economic hardships find a disproportionate number of identity diffusers or foreclosures compared with the incidence in normal times (Marcia, 1994; Waterman & Waterman, 1975; Elder, 1974; Orlofskey et al, 1973). Gender stereotypes and ethnic subcultures in the society can shape members' identity development in a similar extensive fashion by delineating norms, values and acceptable options (O'Connell, 1976; Phinney, 1989).

The factors reviewed above fall generally into two categories: personal and environmental. Age, cognitive ability, and psychological maturity belong to the former, while family dynamics, role models, and socio-historical influences belong to the latter. Given that an individual's development must occur in time and space, these personal and environmental factors should be viewed as inter-related to each other. The previous discussion of them with each dealt with in isolation is more a convenient way of presentation than a reflection of their lack of relationship. However, in the review of the literature, one occasionally does feel the inadequate attention toward the possible interplay between the personal and environmental factors. It seems that we have researched the individual factors that help the development of identity, but once that

sense of identity is formed, how does a person cope with environmental constraints to achieve that identity and what are the crucial factors there are less studied. An example of such an examination would be to look at the role of personality in identity formation to see whether and how different personalities affect an individual's ability to shape environment for the actualization of envisaged self-image.

The study of personality in the identity literature has been mainly conducted with an intention to validate Marcia's identity statuses (Marcia, 1966; Bernard, 1981). It is found that those in the status of Identity Achievement or Moratorium have a higher level of ego strength, autonomy, self-esteem and moral reasoning than those in the status of Foreclosure or Diffusion (Kroger, 1989; Bunt, 1968; Podd, 1972; Orlofsky et al, 1973; Neuber & Genthner, 1977; Warerman, 1982). The findings have provided evidence for the valid differentiation of identity status, and for the establishment of Achievement and Moratorium as "high" statuses with maturer psychological development than the "low" statuses of Foreclosure and Diffusion (Marcia, 1980, 1993). However, viewed from a different perspective, the same findings can be interpreted as suggesting a reciprocal contribution of personality characteristics to the formation of identity. In other words, the reason that people land in different identity statuses may be attributed to their differences in personality characteristics. That reciprocal role of personality, however, have been more or less overlooked in the identity studies, partly because the samples used in most studies are adolescents or college students, who may not be an optimal group to bring out the importance of personality, being still in school preparing for the work in the real world. The present study used a sample that could demonstrate the role of personality in

identity formation with their actual endeavor to overcome environmental barriers for the actualization of their projected identity.

## About The Study

This study evolved from a previous one that investigated identity formation among Terman's gifted children (Zuo, 1999). Studying gifted children's identity formation was a response to an apparent overlook of this population in the current identity literature. Although personality was not included in that study as one of the hypotheses examined, being not an identified influential factor, its effect manifested itself nevertheless in the process of the examinations of other hypotheses. This study attempted to pursue the topic with the same gifted samplle in a hope to gain a better understanding of the issue through a more intensive examination.

## Data Source

Terman's longitudinal database on 1528 intellectually gifted children (IQ $\geq$ 135) was provided by Inter-University Consortium for Political and Social Research (ICPSR). Two data points of 1936 and 1940 were used because a) participants at that time were in their late adolescence or young adulthood, an age range found typical for identity development, and b) the information collected on their occupational decision was relatively adequate for their classification into Marcia's four identity statuses. In addition to these two data files, previous follow-up in 1928 was used for its ratings on participants' personality traits by their parents and teachers, and the 1950 follow-up was used for its data on family dynamics.

Procedures

Based on their responses to Terman's questions in 1936 and again in 1940 concerning their occupational choice and factors that influenced their decision, participants were classified into one of the four identity statuses. Specific criteria for classification were as follows:

1. To be classified into the status of Identity Achievement, a participant should have answered "yes" to the question "Have you definitely chosen your life work?", the occupation should have been chosen rather than drifted into (Question 2: "Is your occupation chosen or drifted into?"), a specific occupation should have been mentioned as an ultimate goal in life (Question 3: "What are your ultimate goals in life?"), and the factors that influenced the choice should have been interest, aptitude, exposure to the area or previous successful experiences, opportunity for training, advancement or serving society (Question 4: "What are the factors that influenced your choice of occupation?").
2. To be classified into the status of Moratorium, a participant should have a definite occupational goal in mind, and the current choice should be due to factors similar to those mentioned by Identity Achievers, but the current occupation was not yet the choice for life work.
3. To be classified into the status of Foreclosure, the person should have a definite goal and a choice for lifework, but the commitment was made because of family or ethnic background, or because of the influence from

parents or other significant figures, or because previous dreams were made impossible by circumstances.

4. To be classified into the status of Diffusion, the person should have no goal nor commitment to any occupation as life work, and the current job was drifted into by various circumstances beyond personal control.

The classification rules are formulated by the rationale that Identity Achievers should have a definite goal in mind and the commitment to a particular occupation is reached after conscientious exploration. A Moratorium should also have a goal in mind, though at that moment is still in the process of exploring options compatible with that goal, in an attempt to make commitment to a certain occupation. Foreclosure is either committed by authority figures or by circumstances with no wish or chance to go through a self-initiated exploration. Finally, Diffusion is neither exploring nor committed, but is drifting aimlessly along by currents of circumstances.

Examination 1: Personality and Identity Status

The data file of 1936 contained 1205 complete cases of 689 males and 516 females. Of these 1205 people, 808 (male = 527, female = 281) were classified with 422 (52.2%) in Achievement status, 175 (21.7%) in Moratorium, 83 (10.3%) in Foreclosure, and 128 (15.8%) in Diffusion status. The same classification process was repeated for data collected in 1940. Seven hundred and eighty-eight (788) participants were classified out of 1256 complete cases (male = 443, female = 345). The classified cases had 348 (44.2%) in Achievement status, 142 (18.0%) in Moratorium status, 84 (10.7%) in Foreclosure status, and 214 (27.2%) in Diffusion status.

To look at the differences among the identity statuses in personality characteristics, the classified individuals in 1940 were examined in terms of their personality traits rated in the same year by participants themselves and their parents. The traits selected as relevant to identity formation were persistence, purposiveness, self-confidence, sense of inferiority and conformity. The result showed that Identity Achievers, Moratoriums, and Foreclosures had similar mean ratings in these traits, but Identity Diffusers were lower in self-confidence, persistence, purposiveness, and higher in sense of inferiority (See Table 1). In most cases, the differences among statuses in these traits reached statistical significance at .05 level by ANOVA test.

The results confirmed Identity Achievement as a "high" status characterized by psychological maturity and Diffusion as a "low" identity status (Marcia, 1980, 1993), but the profiles of Moratorium and Foreclosure did not match those depicted in the literature. In this sample, Foreclosure surpassed Moratorium in mean ratings of self-confidence, persistence, and freedom from sense of inferiority.

The question then became: Could positive personality traits have helped Identity Achievers by keeping them oriented toward the established goal and making meaningful commitment? This question was the focus of this study. As its investigation required a time lapse between the personality ratings and identity classification, earlier trait ratings in 1928 by participants' parents and teachers were used to examine whether the participants classified into an identity status in 1936, the subsequent follow-up, differed in these characteristics. Table 2 presented the results at both descriptive and inferential levels of statistical analyses. The status classification in 1940 was not analyzed with the 1928 traits because the two data points were considered too distant to be effectively related.

Table 2 showed the same pattern as was observed in Table 1, which presented the results of the concurrent examination of traits and identity status. Once again, Achievement status received relatively higher ratings (either the highest or the second highest) from their parents and teachers in traits of perseverance, desire to excel, and conscientiousness. Once again, Diffusion was rated relatively lower in these aspects. Foreclosure again got higher ratings here and there than Moratorium. The differences among statuses, though, were not statistically significant at .05 level by ANOVA test.

Examination 2: Personality and Developmental Pathways

Identity development is a dynamic process with possible changes from one status to another (Waterman, 1982; Graafsman et al, 1994). Moratorium may end up in Identity Achievement after a period of fruitful exploration. Former commitment may become less meaningful when new experiences are encountered, thus triggering a new cycle of exploration and commitment. Waterman (1982) viewed the change from a lower to a higher status, e.g. from Diffusion to Moratorium or from Moratorium to Achievement, as developmentally progressive, whereas the change from a higher to a lower status, e.g. from Moratorium to Diffusion or from Foreclosure to Diffusion, as developmentally regressive.

Will positive personality traits help people proceed progressively in the development of their identity? To explore this question, the trait ratings in 1928 were compared between the subgroups that followed progressive or regressive pathways as defined by their status change from 1936 to 1940. The results of this comparison were presented in Table 3.

At the level of descriptive statistics, the group of the progressive pathway was consistently rated higher than the regressive group by their parents and teachers in traits of perseverance, desire to excel, and conscientiousness, though the differences were mostly not statistically significant at .05 level by ANOVA test. The same pattern held when the progressive and regressive groups were compared in the 1940 parent and self mean ratings on selected traits. The progressive group was more self-confident, persistent, and purposive with a lower sense of inferiority. Half of these differences reached statistical significance by ANOVA test (See Table 4).

Examination 3: Personality and Home Environment

An intriguing question arising from the above examinations was: What could have accounted for the observed differences in personality traits? Were they born or shaped by the environment, to some extent, at least? This question may require a careful design in order to tease out the possible genetic and environmental influences on personality development, but to get a glimpse of the issue from Terman's data, the participants' personality traits were examined in connection with their parents' characteristics and child-rearing practice. Those with a high-end rating of 8 – 11 or 9 – 11 on the 11-point scale for personality ratings were grouped into a "high" group and those with a low-end rating of 1 – 4 or 1- 5 were grouped into a "low" group. The decision of whether to include the rating of 8 in the high group or the rating of 5 into the low group was made individually based on the need for reasonably balanced group sizes.

The high and low groups specific to each of the selected traits were compared in terms of their mean ratings on family variables collected in the 1950 follow-up. These

variables include attachment to father/mother, conflict with father/mother, admiration for father/mother, feeling of affection for father/mother, father's/mother's self-confidence, helpfulness, friendliness, solicitude, encouragement of children's efforts toward initiative and independence, and resistance to children's efforts to achieve normal independence. These variables reflected Terman's interest in the family dynamics of his gifted children.

Of the variables examined, father's self-confidence, mother's self-confidence, father's encouragement toward independence, mother's encouragement toward independence, father's helpfulness, and father's solicitude showed more than random patterns in the mean ratings between the two groups. Specifically, it was found that parents' self-confidence and encouragement to children's independence were associated with children's higher persistence, purposiveness, self-confidence and lower sense of inferiority. Besides, Father's helpfulness had the same conducive effect to the development of these positive characteristics in children, though mother's appeared not. Father's solicitude, expressed as "anxious affection, over-protection and planning for children" (Terman, 1950 questionnaire) seemed likely to compromise children's self-confidence, persistence and purposiveness (See Table 5).

## Discussion

This study intended to explore the importance of personality characteristics in gifted children's identity formation, a topic yet to be fully addressed by the literature. Two pieces of evidence were found that speak to the importance of personality. One came from the concurrent and non-concurrent examinations of the personality traits among the four identity statuses. As expected, Diffusion people were always rated

inferior to people in the other statuses with respect to their persistence, sense of definite purpose, and self-confidence. Conversely their feeling of inferiority was greater.

A second evidence was provided by the groups that followed the progressive and regressive pathways in their identity development. The two groups manifested similar patterns of personality differences as were found with the four identity statuses. The progressive group was superior in self-confidence, persistence, and purposiveness, but lower in sense of inferiority than the regressive group.

An additional support to the importance of personality can be drawn from the study of Terman's group in later maturity by Holahan and Sears (1995). In comparing three groups of Career women – those who pursued a career through most of adult life, Income-Generating workers – those who did considerable work for needed income but did not call it a career, and Homemakers – those who described themselves primarily as housewives, Holahan and Sears found career women more motivated to achieve, more ambitious, more self-confident and purposive, and were encouraged more by their parents to achieve independence (Holahan & Sears, 1995). It was true that other factors may have been at play that stimulated these career women to break away from the stereotyped gender expectations, but their personality characteristics certainly helped their efforts and determination to search for their own identity in the times when traditional values of the society kept women at home to take up the assigned roles of wife and/or mother.

Different from samples in most identity studies that were composed of at-school students, Terman's subjects had mostly entered the occupational world at the data points when their identity formation was examined. As a group, they shared many things in common. They had all reached the age for identity development at the data points under

study; they were all endowed with exceptional cognitive ability for the consideration of the identity issue; they all lived in an eventful historical period that witnessed the depression and the two world wars, and that was marked by stereotyped gender expectations. In sum, they shared the influences of age, cognitive ability, and social-historical environment that are known to affect identity development. Yet, the individual variations within the group were large. Some achieved identity, some were exploring, and a few were drifting aimlessly in life. Their varied outcome in identity formation calls attention, inter alia, to the importance of such characteristics as persistence, purposiveness, desire to excel, and self-confidence.

The results of the three examinations with Terman's group seem to suggest that occupational identity formation is better to be perceived as a two-stage process, each facilitated by some of the personal and environmental factors discussed before. The initial stage is to envision one's occupational identity through aspiration, followed by the next one to actualize the envisioned identity. The occupational aspiration is how an individual would like to see themselves or to be seen by others. It involves the recognition of one's special interests, abilities, values, and goals on the one hand, and possible occupation that is compatible with these interests, abilities, values, and goals on the other. This part is otherwise termed as occupational self-concept (Super, 1951, 1990; Herr & Cramer, 1988). The establishment of the occupational self-concept presumes the cognitive readiness to know oneself and the occupational world. Besides, external factors such as family values, parents' occupational level, and social influences all work together to shape the vision of one's occupational identity. In the second stage of identity actualization, the individual takes action to implement the occupational aspiration until it

becomes his or her true identity in the occupational world. Influential factors in this stage include job preparation through education and experience, mentoring and guidance, opportunities in the society and the individual's strength of character. This second stage seems to be less attended to in the literature given the sampling limitations in identity studies.

Terman's sample illustrated the importance of the second stage, but composed mainly of Whites from middle to upper-middle classes with little representation of minorities except for the over representation of Jewish population, it has its share of limitations, too. Moreover, participants were selected solely by their IQ scores from schools in California. Therefore, to verify and generalize the findings from this study, further studies with more contemporary and representative samples are necessary.

The significance of identity development is well demonstrated by the proliferous studies on the topic with the general population, though the gifted population has not been much studied. Given the values of gifts and talents to the society, and given that adolescence is an important developmental stage and identity resolution has a potential for life-long impact, gifted education has need to catch up with the research in this area.

For parents, the message of this study lies with the possibility to foster the development of positive characteristics in their children. The development of success-prone personality is too critical to be left to chance alone. The current lack of study in this respect may have resulted partially from our inclination to think that personality is born rather than shaped by the environment. However, the different family dynamics among the four identity statuses, between the progressive and regressive groups, and between the career and non-career women in Terman's gifted sample (Holahan & Sears, 1995) have

all provided evidence to the possible role of environment in shaping an individual's personality. Parents' encouragement of children's independence, good modeling of self-confidence, and refrainment from anxious affection and over-protection can be beneficial to the development of children's self-confidence, persistence, and purposive endeavor. In Terman's group, those who had a successful resolution of the identity crisis, or those who had pursued a career meaningful to them had a more favorable perception of their family environment, particularly their parents' encouragement to the r efforts for independence. Teachers, as another source of children's significant influence, can work in academic field to help the development of their students' desirable characteristics by careful modeling, optimal challenging, and discreet facilitation. Considering that both intellectual and non-intellectual factors are important for the gifted to achieve their full potential, educators of the gifted need not only emphasize the cultivation of their cognition and creativity, but also develop the kind of personality that ensures the realization of their intellectual and creative potentials. While helping the gifted develop a clear sense of identity is beneficial to a directed application of their talent, time and energy, helping them develop a 'right' personality will enable them to make a sustained strive in seeking to fulfil the envisaged identity in spite of difficulties and adversities in their environment.

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TABLE 1: 1940 Personality Trait Ratings & ANOVA Test Results among Identity Statuses Classified in 1940*

| Rater | Trait | Status in 1940 | N | Mean | SD | F |
|---|---|---|---|---|---|---|
| Parent | Self-confidence | Achievement | 204 | 7.58 | 1.57 | 5.152* (df = 3, 466) |
| | | Moratorium | 90 | 7.02 | 2.22 | |
| | | Foreclosure | 60 | 7.47 | 1.53 | |
| | | Diffusion | 116 | 6.77 | 2.34 | |
| | Inferiority | Achievement | 204 | 4.74 | 1.86 | 1.413 (df = 3, 466) |
| | | Moratorium | 90 | 5.02 | 2.25 | |
| | | Foreclosure | 60 | 4.90 | 1.74 | |
| | | Diffusion | 116 | 5.21 | 2.26 | |
| | Conformity | Achievement | 204 | 6.76 | 2.02 | 5.606** (df = 3, 466) |
| | | Moratorium | 90 | 5.87 | 2.30 | |
| | | Foreclosure | 60 | 7.02 | 1.96 | |
| | | Diffusion | 116 | 6.19 | 2.33 | |
| | Persistence | Achievement | 204 | 8.44 | 1.55 | 9.810*** (df = 3, 466) |
| | | Moratorium | 90 | 7.80 | 2.05 | |
| | | Foreclosure | 60 | 8.20 | 1.44 | |
| | | Diffusion | 116 | 7.35 | 2.09 | |
| Self | Self-confidence | Achievement | 335 | 6.92 | 1.77 | 11.796*** (df = 3, 738) |
| | | Moratorium | 133 | 6.71 | 1.80 | |
| | | Foreclosure | 78 | 6.47 | 1.60 | |
| | | Diffusion | 196 | 5.94 | 2.07 | |
| | Inferiority | Achievement | 334 | 6.05 | 1.87 | 2.030 (df = 3, 737) |
| | | Moratorium | 134 | 6.08 | 1.95 | |
| | | Foreclosure | 77 | 6.17 | 1.67 | |
| | | Diffusion | 196 | 6.45 | 1.90 | |
| | Purposive-ness | Achievement | 334 | 7.09 | 1.42 | 49.588*** (df = 3, 734) |
| | | Moratorium | 133 | 6.25 | 1.51 | |
| | | Foreclosure | 77 | 6.95 | 1.39 | |
| | | Diffusion | 194 | 5.51 | 1.64 | |
| | Persistence | Achievement | 335 | 7.64 | 1.64 | 41.109*** (df = 3, 737) |
| | | Moratorium | 133 | 7.17 | 1.66 | |
| | | Foreclosure | 77 | 7.56 | 1.24 | |
| | | Diffusion | 196 | 6.67 | 1.94 | |

1. Data sources: 1940 questionnaires for participants and parents

* $p \leq .01$
** $p \leq .001$
*** $p \leq .000$

TABLE 2: 1928 Trait Ratings & ANOVA Test Results among Identity Statuses Classified in 1936[1]

| Rater | Trait | Status in 1936 | N | Mean | SD | F |
|---|---|---|---|---|---|---|
| Parent | Perseverance | Achievement | 229 | 9.47 | 2.36 | .665 (df = 3, 446) |
| | | Moratorium | 113 | 9.12 | 2.17 | |
| | | Foreclosure | 46 | 9.46 | 2.45 | |
| | | Diffusion | 62 | 9.24 | 2.09 | |
| | Desire to excel | Achievement | 231 | 10.07 | 1.97 | 2.186 (df = 3, 449) |
| | | Moratorium | 112 | 9.79 | 2.14 | |
| | | Foreclosure | 46 | 10.15 | 2.44 | |
| | | Diffusion | 64 | 9.38 | 2.08 | |
| | Conscientious-ness | Achievement | 232 | 10.12 | 2.29 | 1.220 (df = 3, 449) |
| | | Moratorium | 112 | 9.98 | 2.40 | |
| | | Foreclosure | 46 | 10.33 | 2.48 | |
| | | Diffusion | 63 | 9.56 | 2.47 | |
| Teacher | Perseverance | Achievement | 149 | 9.34 | 2.40 | .990 (df = 3, 291) |
| | | Moratorium | 69 | 9.22 | 2.39 | |
| | | Foreclosure | 28 | 9.46 | 2.86 | |
| | | Diffusion | 49 | 8.69 | 2.29 | |
| | Desire to excel | Achievement | 150 | 9.65 | 2.21 | .909 (df = 3, 292) |
| | | Moratorium | 70 | 9.33 | 2.42 | |
| | | Foreclosure | 28 | 9.32 | 2.93 | |
| | | Diffusion | 48 | 9.06 | 2.21 | |
| | Conscientious-ness | Achievement | 150 | 9.32 | 2.59 | 1.054 (df = 3, 295) |
| | | Moratorium | 70 | 9.23 | 2.61 | |
| | | Foreclosure | 29 | 8.86 | 3.07 | |
| | | Diffusion | 50 | 8.62 | 2.23 | |

1. Data sources: 1928 questionnaires for participants and teachers
1936 questionnaire for participants

TABLE 3: 1928 Trait Ratings & ANOVA Test Results Between Progressive and Regressive Groups[1]

| Rater | Trait | Group | N | Mean | SD | F |
|---|---|---|---|---|---|---|
| Parent | Perseverance | Progressive | 53 | 9.32 | 2.29 | .510 |
| | | Regressive | 36 | 8.97 | 2.22 | (df = 1, 87) |
| | Desire to excel | Progressive | 53 | 10.36 | 1.87 | 3.079 |
| | | Regressive | 35 | 9.57 | 2.32 | (df = 1, 86) |
| | Conscientious-ness | Progressive | 52 | 10.50 | 2.16 | 3.966* |
| | | Regressive | 36 | 9.53 | 2.37 | (df = 1, 86) |
| Teacher | Perseverance | Progressive | 34 | 9.29 | 2.24 | 1.393 |
| | | Regressive | 22 | 8.50 | 2.77 | (df = 1, 54) |
| | Desire to excel | Progressive | 36 | 9.64 | 2.15 | 1.512 |
| | | Regressive | 24 | 8.92 | 2.34 | (df = 1, 58) |
| | Conscientious-ness | Progressive | 36 | 9.31 | 2.28 | 3.361 |
| | | Regressive | 23 | 8.00 | 3.19 | (df = 1, 57) |

1. Data sources: 1928 questionnaires for parents and teachers
1936 & 1940 questionnaires for participants

* $p \leq .05$

TABLE 4: 1940 Trait Ratings & ANOVA Test Results Between Progressive and Regressive Groups[1]

| Rater | Trait | Group | N | Mean | SD | F |
|---|---|---|---|---|---|---|
| Parent | Self-confidence | Progressive | 57 | 7.75 | 1.61 | .603 |
| | | Regressive | 37 | 7.46 | 2.06 | (df = 1, 92) |
| | Inferiority | Progressive | 56 | 4.73 | 1.72 | 1.552 |
| | | Regressive | 38 | 5.24 | 2.20 | (df = 1, 92) |
| | Conformity | Progressive | 58 | 6.19 | 2.14 | .850 |
| | | Regressive | 38 | 5.76 | 2.33 | (df = 1, 94) |
| | Persistence | Progressive | 58 | 8.43 | 1.49 | 4.162* |
| | | Regressive | 39 | 7.77 | 1.68 | (df = 1, 95) |
| Self | Self-confidence | Progressive | 81 | 6.99 | 1.71 | 7.813** |
| | | Regressive | 51 | 6.02 | 2.26 | (df = 1, 130) |
| | Inferiority | Progressive | 81 | 6.01 | 1.81 | 5.829* |
| | | Regressive | 51 | 6.84 | 2.10 | (df = 1, 130) |
| | Purposiveness | Progressive | 80 | 6.90 | 1.35 | 20.996*** |
| | | Regressive | 50 | 5.66 | 1.72 | (df = 1, 128) |
| | Persistence | Progressive | 81 | 7.68 | 1.54 | 3.813 |
| | | Regressive | 51 | 7.10 | .85 | (df = 1, 130) |

1. Data source: 1940 questionnaires for participants and parents

* $p \leq .05$
** $p \leq .01$
*** $p \leq .000$

Table 5: 1940 Mean Ratings on Family Dynamics by Groups High and Low on Self-Rated Traits[1]

| Trait | Group | Father: Self-confidence | Mother: Self-confidence | Father: Encouragement to independence | Mother: Encouragement to independence | Father: Resistance to independence | Father: Helpfulness | Father: Solicitude |
|---|---|---|---|---|---|---|---|---|
| Persistence | High group (Ratings 9-11, n = 288) | 3.58 | 3.44 | 3.30 | 3.38 | 1.78 | 3.48 | 2.22 |
| | Low group (Ratings 1-5, n = 183) | 3.48 | 3.22 | 3.18 | 3.22 | 1.85 | 3.37 | 2.35 |
| Inferiority | High group (Ratings 8-11, n = 333) | 3.43 | 3.23 | 3.08 | 3.16 | 1.94 | 3.37 | 2.39 |
| | Low group (Ratings 1- 4, n = 281) | 3.68 | 3.50 | 3.50 | 3.63 | 1.58 | 3.54 | 2.19 |
| Purposive-ness | High group (Ratings 8-11, n = 347) | 3.54 | 3.36 | 3.42 | 3.43 | 1.71 | 3.53 | 2.26 |
| | Low group (Ratings 1-5, n = 309) | 3.42 | 3.32 | 3.07 | 3.17 | 1.86 | 3.41 | 2.38 |
| Self-Confidence | High group (Ratings 9-11, n = 170) | 3.79 | 3.67 | 3.52 | 3.70 | 1.60 | 3.48 | 2.02 |
| | Low group (Ratings 1-4, n = 194) | 3.45 | 3.11 | 2.96 | 3.14 | 1.92 | 3.39 | 2.29 |

1. Data sources: 1940 and 1950 follow-ups